





SPECIFICATION

Product Name: Sensor DIM LED Driver

Model No.: MLC20C-NPS / MLC40C-NPS / MLC60C-NPS

Issue Date: 2023-12-25

CUSTOMER APPROVED

PRODUCT DIRECTOR APPROVED	P&M APPROVED	R&D CHECKED	PREPARED
			

Version	Product No.	Updating Reason	Stage	Date
A0	MLC20C-NPS MLC40C-NPS MLC60C-PS	Update sensor split head	Production	Dec 25,2023

1. Feature



- 1) Metal strip non-isolated power supply; flicker-free PWM dimming power supply; with 12V auxiliary power supply; matching different sensor and wireless smart module.
- 2) Great performance, high efficiency, high PF value and low stand-by power; conforming to new ERP standard and complying to CE, TUV, SAA and CCC certification standards.
- 3) Built-in power supply is suitable for strip lamps; changing parameters by DIP switches.

2. Split head collocation

Model No.	MC087D 99			
Set mode	Top dip	Bottom dip	Top dip	Bottom dip
Mounting structure	Clasp structure	Clasp structure	Screw installation structure	Screw installation structure
Output Signal	0-10VDC dimming signal	0-10VDC dimming signal	0-10VDC dimming signal	0-10VDC dimming signal
Product picture				

Model No.	MC087D 99 1			
Set mode	Top dip	Bottom dip	Top dip	Bottom dip
Mounting structure	Clasp structure	Clasp structure	Screw installation structure	Screw installation structure
Output Signal	PWM dimming signal	PWM dimming signal	PWM dimming signal	PWM dimming signal
Product picture				

Shenzhen Merrytek Technology Co.,Ltd

Add: No.17th Building, Dianda Guyuan Industrial Park, Mashantou, Matian, Guangming District, Shenzhen, China, 518106
Tel: +86 (0)755-2305 7253 Fax: +86 (0)755-2786 3012 Website: www.merrytek.com

3. Parameter

Product No.		MLC20C-NPS	MLC40C-NPS	MLC60C-NPS
Input	Voltage Range	198-264Vac 50Hz/60Hz		
	Input Current	0.1A (@230Vac full load)	0.19A (@230Vac full load)	0.3A (@230Vac full load)
	Operating Voltage	220-240Vac 50Hz/60Hz		
	No-load Power	≤0.3W		
	Stand-by Power	≤0.3W		
	Power Factor	≥0.9 (@230Vac full load)	≥0.95 (@230Vac full load)	≥0.95 (@230Vac full load)
	Working Efficiency	85% (230V Max load)	90% (230V Max load)	90% (230V Max load)
	THD	≤20% (@230V ac full load)		
	Leak Current	<0.5mA/240V		
	Surge Current	<22A (100us half-current) @230Vac		
Output	Working model	Constant Current		
	Type of load	LED		
	Start Time	≤1S (@230Vac full load)		
	Ripple Current	±5% (@230Vac full load, LED full load)		
	Strobe Frequency Requirement	Flicker free (≤5%)		
	No-load Output Voltage	65Vdc Max	160Vdc Max	200Vdc Max
	Load Power	18.9W Max	42W Max	61.25W Max
	Load Current	200mA\250mA\300mA\350mA (set by DIP switches)		
	Load Output Voltage Range	30-54Vdc	65-120Vdc	90-175Vdc
Connecting Port	PWM	Yes (5V and 3.3V PWM signals are compatible)		
	Port Connecting Method	3PIN 2.0 row needles terminal		

Auxiliary Power Supply	Voltage	12V±1V
	Current	Max100mA
Protection Requirements	Operating Temperature/Humidity	-25℃~+50℃
	Storage Temperature/Humidity	-40℃~+80℃ Humidity: 85% (Non-condensing)
	Atmospheric Pressure	86~106KPa
Certificate	Safety Standards (LVD)	EN61347-1, EN61347-2-13

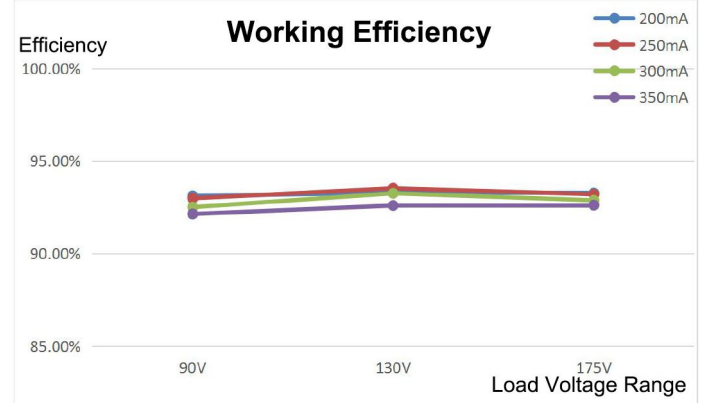
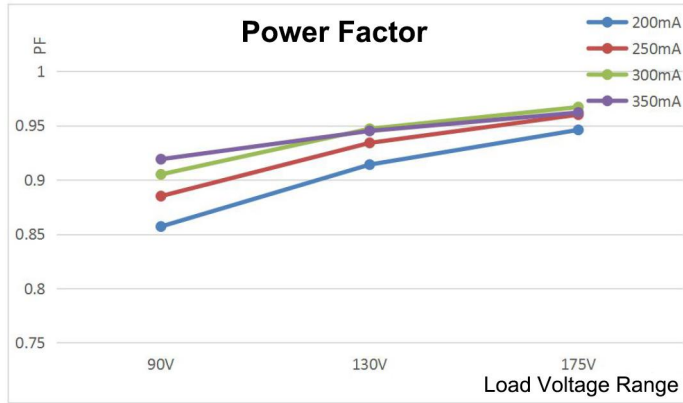
Shenzhen Merrytek Technology Co.,Ltd

Add: No.17th Building, Dianda Guyuan Industrial Park, Mashantou, Matian, Guangming District, Shenzhen, China, 518106
Tel: +86 (0)755-2305 7253 Fax: +86 (0)755-2786 3012 Website: www.merrytek.com

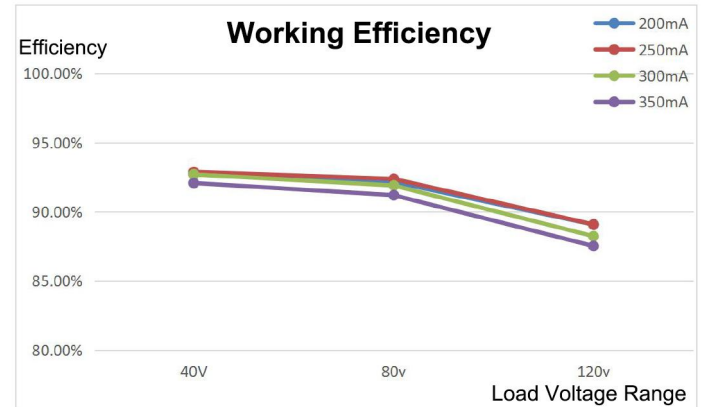
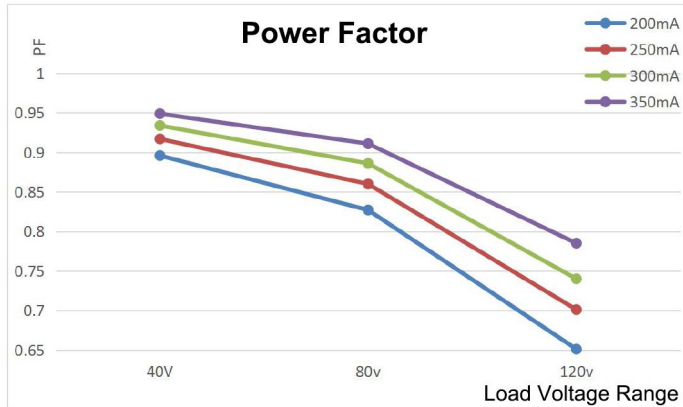
Standards	EMC Standards	EN55015, EN61547, EN61000-3-2, EN61000-3-3		
	Lightning Surge	LN: 1KV		
	Withstand Voltage	1500V AC 5mA 60S (input "L N" to output SEC+ SEC-)		
	Environmental requirement	Compliant to RoHS		
	Certificate	CE \ TUV \ SAA \ CCC		
Others	Output Current Accuracy	±5%		
	Wiring	Press terminal, wire diameter: 0.5-1.0mm ²		
	IP Rating	IP20		
	Protection Class	Class II		
	Installation	Built-in		
	Dimension	195*30*21mm		
	Net Weight	135g±3g	135g±3g	138g±3g
	Warranty	Five years warranty (Ta=50℃@230Vac full load)		

4. Product Characteristic Testing

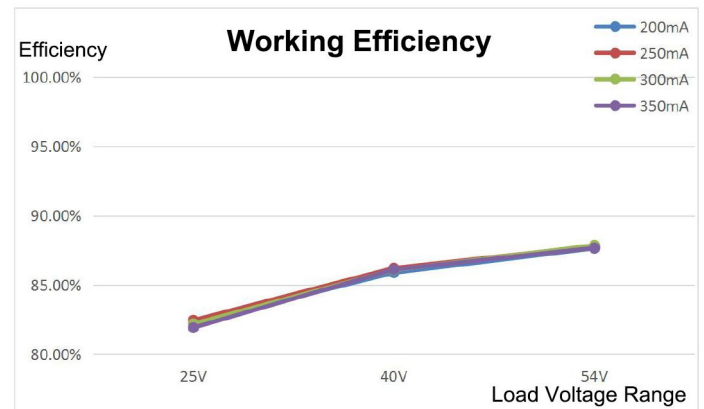
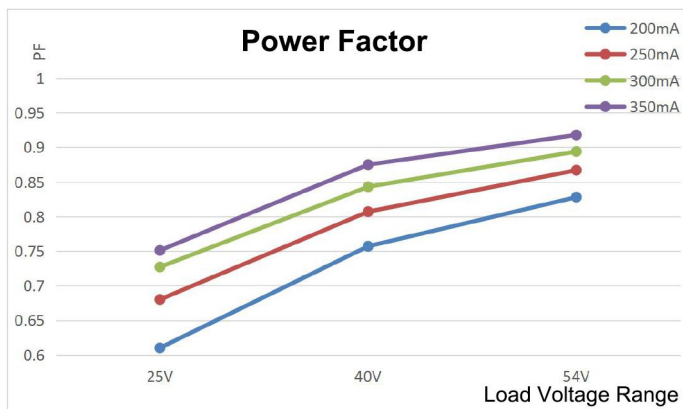
MLC60C-NPS



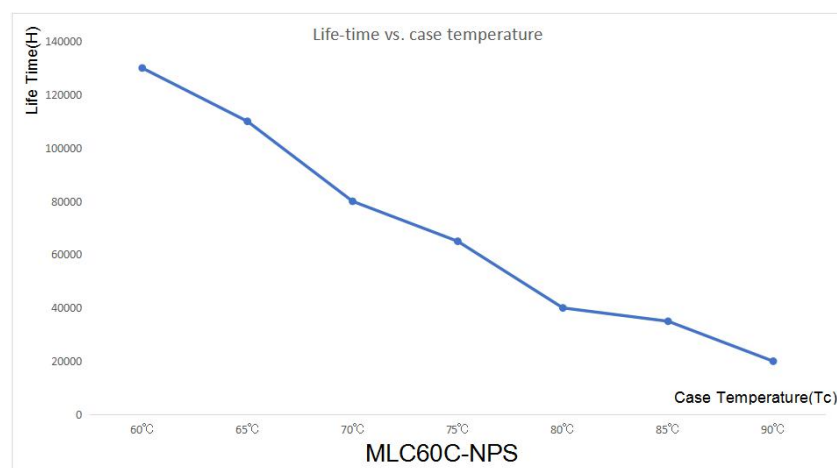
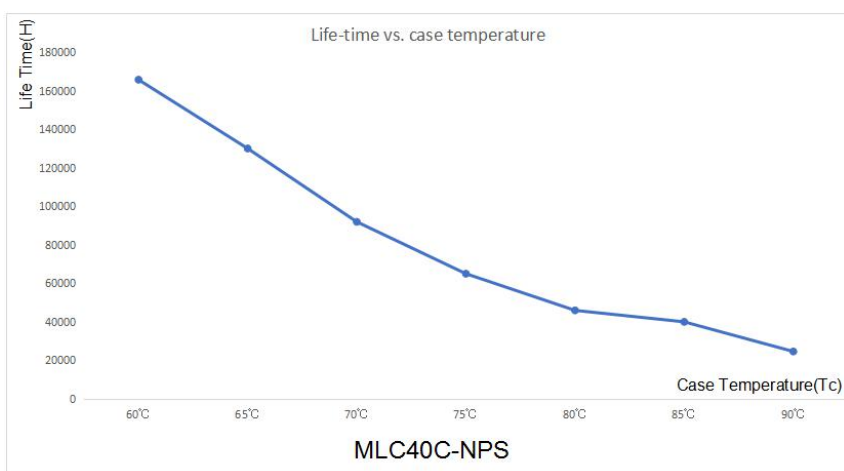
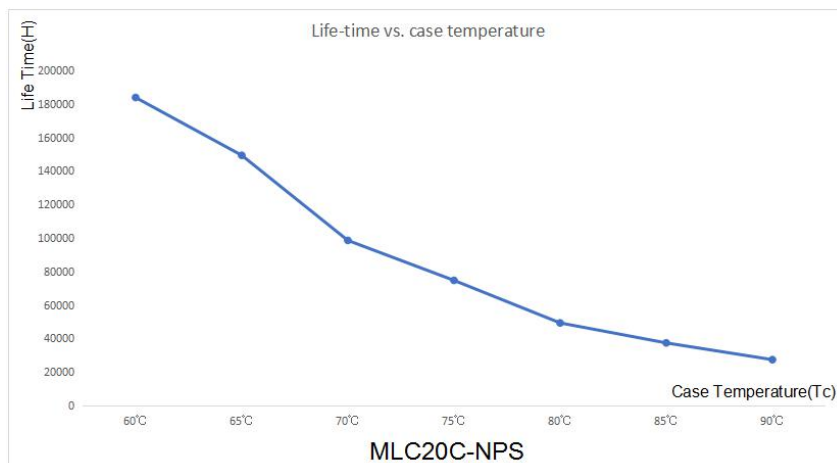
MLC40C-NPS



MLC20C-NPS



Life Curve



Shenzhen Merrytek Technology Co.,Ltd

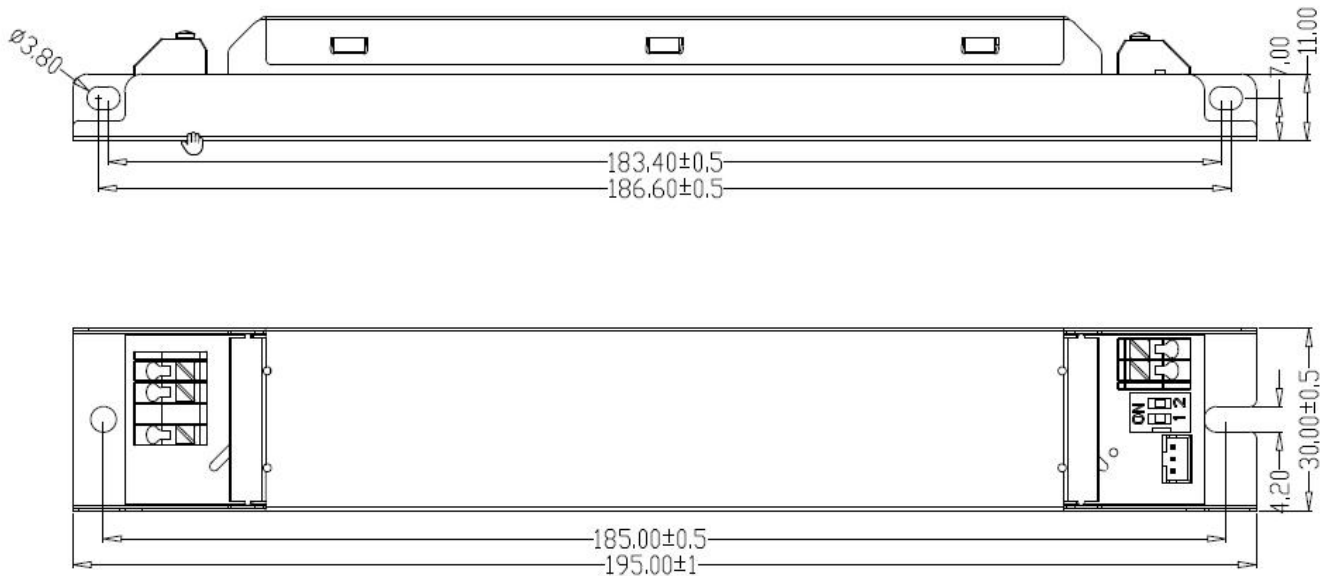
Add: No.17th Building, Dianda Guyuan Industrial Park, Mashantou, Matian, Guangming District, Shenzhen, China, 518106

Tel: +86 (0)755-2305 7253

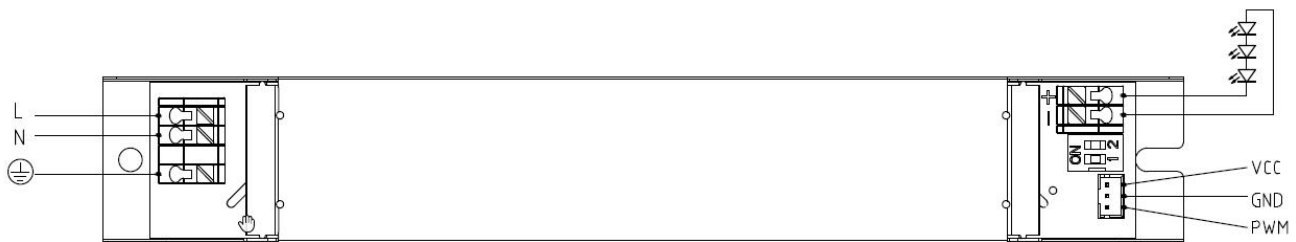
Fax: +86 (0)755-2786 3012

Website: www.merrytek.com

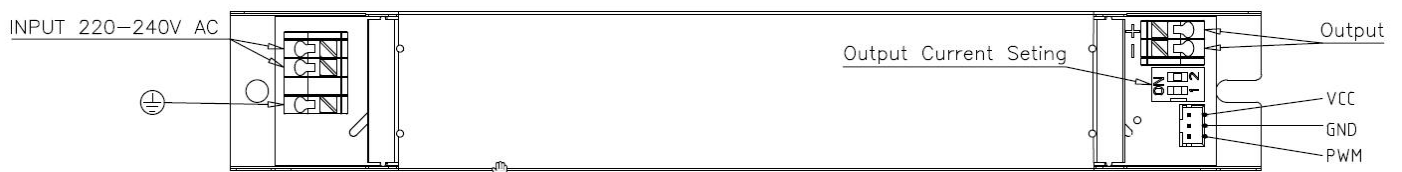
5. Dimension (mm)



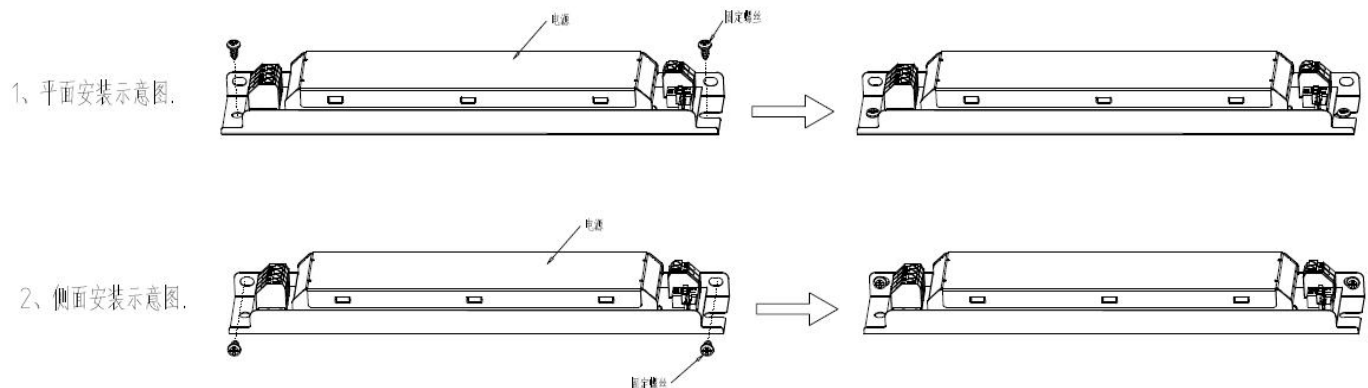
6. Wiring



7. Functional diagram



8. Installation diagram



7. DIP Switch Setting

Output Current Setting

I rated (CC)	1	2
350mA	ON	ON
300mA	-	ON
250mA	ON	-
200mA	-	-

8. Application Notice

- (1) Please use product according to specifications. Failure may occur if the product is used beyond the service conditions.
- (2) Connect loads firstly before turning on the input power; otherwise, load may be damaged.
- (3) After the LED drive input power is off, the output end still has residual voltage, which can be maintained for about 3 minutes.
- (4) This product is a non-isolated power supply:
 - a. To avoid electric shock, do not operate with power on before connecting load.
 - b. To avoid damaging sensing head, power off is also required before connecting.